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Vario 4.1.3 - Application Reset Response telegrams

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Diehl Metering
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1 Notes

This document describes the individual MBus response telegrams of the vario 4.1.3 depending on the active Application Reset subcode.
The Application Reset subcodes differs in

- Standardized Data Response: The Application Reset subcode remains active until the next Application Select command.
- Non-Standard Data Response: The Application Reset subcode switches back to the last activated Application Reset subcode that was a Standardized Data Response after 12 hours at the latest.

Overview of Application Reset Subcodes Heat and Cold Meters:

ApplicationResetSubcode	Standard Data Response
0x10	Yes
0x20	Yes
0x50	Yes
0x60	Yes
0x80	No -> DiehlMeteringSetupAnswer
0xB0	No -> DiehlMeteringCommandReply

VIB table

Energy unit	Visible decimals on Display	Energy	Volume	Flow	Power
kWh	0	0x05 [0,1kWh]	0x13 [1l]	0x3B [1l/h]	0x2B [1W]
MWh	3	0x05 [0,1kWh]	0x13 [1l]	0x3B [1l/h]	0x2B [1W]
MWh	2	0x06 [1kWh]	0x14 [10l]	0x3C [10l/h]	0x2C [10W]
MWh	1	0x07 [10kWh]	0x15 [100l]	0x3D [100l/h]	0x2D [100W]
GJ	3	0x0D [0,1MJ]	0x13 [1l]	0x3B [1l/h]	0x2B [1W]
GJ	2	0x0E [1MJ]	0x14 [10l]	0x3C [10l/h]	0x2C [10W]
GJ	1	0x0F [10MJ]	0x15 [100l]	0x3D [100l/h]	0x2D [100W]

2 Application Reset Subcode 0x10

This MBus response telegram is the default response telegram. It is always activated when an Application Reset subcode is selected for which there is no description in this document.

Heat Meter and Cold Meter

ByteOffset	Description	Content
1	DIBMainEnergy	0x04: current value, 4 Byte Binary
2	VIBEnergy	Refer to “VIB table”
3 … 6	Data value	cumulative energy (main battery), always positive If value too large for DataRecord, the most significant digit is 'E'
7	DIBMainVolume	0x04: current value, 4 Byte Binary
8	VIBVolume	Refer to “VIB table”
9 … 12	Data value	cumulated volume (main energy), always positive If value too large for DataRecord, most significant digit is 'E'

13	DIBFlow	0x02: current value, 2 Byte Binary
14	VIBFlow	Refer to "VIB table"
15 … 16	Data value	current flow rate, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
17	DIBPower	0x03: current value, 3 Byte Binary
18	VIBPower	Refer to "VIB table"
19 … 21	Data value	current power, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
22	DIBTemp	0x02: current value, 2 Byte Binary
23	VIBFlowTemp	0x5A: flow temperature [0,1°C]
24 … 25	Data value	current flow temperature If the value is negative, the most significant digit is 'F'
26	DIBTemp	0x02: current value, 2 Byte Binary
27	VIBReturnTemp	0x5E: back flow temperature [0,1°C]
28 … 29	Data value	Current back flow temperature If the value is negative, the most significant digit is 'F'
30	DIBTemp	0x02: current value, 2 Byte Binary
31	VIBDiffTemp	0x62: temperature difference [0,1K]
32 … 33	Data value	current temperature difference If the value is negative, the most significant digit is 'F'
34 … 35	DIBNextDueDate	0xC2 0x0F: 2 Byte
36 … 37	VIBNextDueDate	0xEC 0x7E: future time stamp, data type G
38 … 41	Data value	future key date (provided by Techem)
42	DIBDueDateValueMainEnergy	0x44: current vaclue, 4 Byte Binary
43	VIBDueDateValueMainEnergy	Refer to "VIB table"
44 … 47	Data value	always positive If value too large for DataRecord, the most significant digit is 'E'
48	DIBDueDate	0x42: 2 Byte, Value from Techem, invalid (0xFFFF) if no due date has happened so far
49	VIBDueDate	0x6C: current due date, data type G
50 … 51	Data value	Last due date
52	DIBDueDateVolume	0x44: due date value, 4 Byte Binary
53	VIBDueDateVolume	Refer to "VIB table"
54 … 57	Data value	cumulated volume at due date, always positive If value too large for DataRecord, most significant digit is 'E'
58	DIBState	0x0F: manufacturer specific, 11 Byte
59 … 69	Data values	First Byte signature of data, 3 Byte Version legal version, 3 Byte non legal version, 3 Byte techem version, 1 Byte remaining metrological log entries

Combined Meter

ByteOffset	Description	Content
1	DIBMainEnergy (heat)	0x04: current value, 4 Byte Binary
2	VIBEnergy (heat)	Refer to "VIB table"

3 … 6	Data value	cumulative energy (main battery), always positive If value too large for DataRecord, the most significant digit is 'E'
7 … 8	DIBMainEnergy (cold)	0x84 0x10: current value, 4 Byte Binary
9	VIBEnergy (cold)	Refer to “VIB table”
10 … 13	Data value	cumulative energy, always positive If value too large for DataRecord, the most significant digit is 'E'
14	DIBMainVolume	0x04: current value, 4 Byte Binary
15	VIBVolume	Refer to “VIB table”
16 … 19	Data value	cumulated volume (main energy), always positive If value too large for DataRecord, most significant digit is 'E'
20	DIBFlow	0x02: current value, 2 Byte Binary
21	VIBFlow	Refer to “VIB table”
22 … 23	Data value	current flow rate, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
24	DIBPower (heat)	0x03: current value, 3 Byte Binary
25	VIBPower (heat)	Refer to “VIB table”
26 … 28	Data value	current power, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
29 ... 30	DIBPower (cold)	0x83 0x10: current value, 3 Byte Binary
31	VIBPower (cold)	Refer to “VIB table”
32 … 34	Data value	current power, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
35	DIBTemp	0x02: current value, 2 Byte Binary
36	VIBFlowTemp	0x5A: flow temperature [0,1°C]
37 … 38	Data value	current flow temperature If the value is negative, the most significant digit is 'F'
39	DIBTemp	0x02: current value, 2 Byte Binary
40	VIBReturnTemp	0x5E: back flow temperature [0,1°C]
41 … 42	Data value	Current back flow temperature If the value is negative, the most significant digit is 'F'
43	DIBTemp	0x02: current value, 2 Byte Binary
44	VIBDiffTemp	0x62: temperature difference [0,1K]
45 … 46	Data value	current temperature difference If the value is negative, the most significant digit is 'F'
47 … 48	DIBNextDueDate	0xC2 0x0F: 2 Byte
49 … 50	VIBNextDueDate	0xEC 0x7E: future time stamp, data type G
51 … 52	Data value	future key date (provided by Techem)
53	DIBDueDateValueEnergy(heat)	0x44: current value, 4 Byte Binary
54	VIBDueDateValueEnergy(heat)	Refer to “VIB table”
55 … 58	Data value	always positive If value too large for DataRecord, the most significant digit is 'E'
59 … 60	DIBDueDateValueEnergy(cold)	0xC4 0x10: current value, 4 Byte Binary
61	VIBDueDateValueEnergy(cold)	Refer to “VIB table”

62 … 65	Data value	always positive If value too large for DataRecord, the most significant digit is 'E'
66	DIBDueDate	0x42: 2 Byte, Value from Techem, invalid (0xFFFF) if no due date has happened so far
67	VIBDueDate	0x6C: current due date, data type G
68 … 69	Data value	Last due date
70	DIBDueDateVolume	0x44: due date value, 4 Byte Binary
71	VIBDueDateVolume	Refer to "VIB table"
72 … 73	Data value	cumulated volume at due date, always positive If value too large for DataRecord, most significant digit is 'E'
74	DIBState	0x0F: manufacturer specific, 11 Byte
75 … 85	Data	First Byte signature of data, 3 Byte Version legal version, 3 Byte non legal version, 3 Byte techem version, 1 Byte remaining metrological log entries

3 Application Reset Subcode 0x20

This response telegram contains DataRecords, which are created by Techem.

Heat Meter and Cold Meter

ByteOffset	Description	Content
1 … 2	DIBNextDueDate	0xC2 0x0F: 2 Byte Type G
3 … 4	VIBNextDueDate	0xEC 0x7E: future time stamp, data type G
5 … 6	Data value	future key date (provided by Techem)
7 … 8	DIBDateTime	0x04: current value, 4 Byte
9 … 10	VIBDateTime	0x6D: time stamp, data type F
11 … 14	Data value	current date and time
15	DIBDueDateValueMainEnergy	0x44: current vaclue, 4 Byte Binary
16	VIBDueDateValueMainEnergy	Refer to "VIB table"
17 … 20	Data value	always positive If value too large for DataRecord, the most significant digit is 'E'
21	DIBDueDate	0x42: 2 Byte, Value from Techem, invalid (0xFFFF) if no due date has happened so far
22	VIBDueDate	0x6C: current due date, data type G
23 … 24	Data value	Last due date
25	DIBDueDateVolume	0x44: due date value, 4 Byte Binary
26	VIBDueDateVolume	Refer to "VIB table"
27 … 30	Data value	cumulated volume at due date, always positive If value too large for DataRecord, most significant digit is 'E'

31 … 32	DIBHistoryEnergy_newest	0x84 0x01: 4 Byte Binary
33	VIBHistoryEnergy_newest	Refer to “VIB table”
34 … 37	Data value	The value is a monthly end value except the start value which is send as oldest value in the history
38 … 39	DIBHistoryEnergy_2	0xC4 0x01: 4 Byte Binary
40	VIBHistoryEnergy_2	Refer to “VIB table”
41 … 44	Data value	Data Value
45 … 46	DIBHistoryEnergy_3	0x84 0x02: 4 Byte Binary
47	VIBHistoryEnergy_3	Refer to “VIB table”
48 … 51	Data value	Data Value
52 … 53	DIBHistoryEnergy_4	0xC4 0x02: 4 Byte Binary
54	VIBHistoryEnergy_4	Refer to “VIB table”
55 … 58	Data value	Data Value
59 … 60	DIBHistoryEnergy_5	0x84 0x03: 4 Byte Binary
61	VIBHistoryEnergy_5	Refer to “VIB table”
62 … 65	Data value	Data Value
66 … 67	DIBHistoryEnergy_6	0xC4 0x03: 4 Byte Binary
68	VIBHistoryEnergy_6	Refer to “VIB table”
69 … 72	Data value	Data Value
73 … 74	DIBHistoryEnergy_7	0x84 0x04: 4 Byte Binary
75	VIBHistoryEnergy_7	Refer to “VIB table”
76 … 79	Data value	Data Value
80 … 81	DIBHistoryEnergy_8	0xC4 0x04: 4 Byte Binary
82	VIBHistoryEnergy_8	Refer to “VIB table”
83 … 86	Data value	Data Value
87 … 88	DIBHistoryEnergy_9	0x84 0x05: 4 Byte Binary

89	VIBHistoryEnergy_9	Refer to “VIB table”
90 … 93	Data value	Data Value
94 … 95	DIBHistoryEnergy_10	0xC4 0x05: 4 Byte Binary
96	VIBHistoryEnergy_10	Refer to “VIB table”
97 … 100	Data value	Data Value
101 … 102	DIBHistoryEnergy_11	0x84 0x06: 4 Byte Binary
103	VIBHistoryEnergy_11	Refer to “VIB table”
104 … 107	Data value	Data Value
108 … 109	DIBHistoryEnergy_12	0xC4 0x06: 4 Byte Binary
110	VIBHistoryEnergy_12	Refer to “VIB table”
111 … 114	Data value	Data Value
115 … 116	DIBHistoryEnergy_13	0x84 0x07: 4 Byte Binary
117	VIBHistoryEnergy_13	Refer to “VIB table”
118 … 121	Data value	Data Value
122 … 123	DIBHistoryEnergy_14	0xC4 0x07: 4 Byte Binary
124	VIBHistoryEnergy_14	Refer to “VIB table”
125 … 128	Data value	Data Value
129 … 130	DIBHistoryEnergy_oldest	0x84 0x08: 4 Byte Binary
131	VIBHistoryEnergy_oldest	Refer to “VIB table”
132 … 135	Data value	Data Value
136 … 137	DIBHistoryVolume_newest	0x84 0x01: 4 Byte Binary
138	VIBHistoryVolume_newest	Refer to “VIB table”
139 … 142	Data value	The value is a monthly end value except the start value which is send as oldest value in the history
143 … 144	DIBHistoryVolume_2	0xC4 0x01: 4 Byte Binary
145	VIBHistoryVolume_2	Refer to “VIB table”

146 … 149	Data value	Data Value
150 … 151	DIBHistoryVolume_3	0x84 0x02: 4 Byte Binary
152	VIBHistoryVolume_3	Refer to “VIB table”
153 … 156	Data value	Data Value
157 … 158	DIBHistoryVolume_4	0xC4 0x02: 4 Byte Binary
159	VIBHistoryVolume_4	Refer to “VIB table”
160 … 163	Data value	Data Value
164 … 165	DIBHistoryVolume_5	0x84 0x03: 4 Byte Binary
166	VIBHistoryVolume_5	Refer to “VIB table”
167 … 170	Data value	Data Value
171 … 172	DIBHistoryVolume_6	0xC4 0x03: 4 Byte Binary
173	VIBHistoryVolume_6	Refer to “VIB table”
174 … 177	Data value	Data Value
178 … 179	DIBHistoryVolume_7	0x84 0x04: 4 Byte Binary
180	VIBHistoryVolume_7	Refer to “VIB table”
181 … 184	Data value	Data Value
185 … 186	DIBHistoryVolume_8	0xC4 0x04: 4 Byte Binary
187	VIBHistoryVolume_8	Refer to “VIB table”
188 … 191	Data value	Data Value
192 … 193	DIBHistoryVolume_9	0x84 0x05: 4 Byte Binary
194	VIBHistoryVolume_9	Refer to “VIB table”
195 … 198	Data value	Data Value
199 … 200	DIBHistoryVolume_10	0xC4 0x05: 4 Byte Binary
201	VIBHistoryVolume_10	Refer to “VIB table”
202 … 205	Data value	Data Value

206 … 207	DIBHistoryVolume_11	0x84 0x06: 4 Byte Binary
208	VIBHistoryVolume_11	Refer to “VIB table”
209 … 212	Data value	Data Value
213 … 214	DIBHistoryVolume_12	0xC4 0x06: 4 Byte Binary
215	VIBHistoryVolume_12	Refer to “VIB table”
216 … 219	Data value	Data Value
220 … 221	DIBHistoryVolume_13	0x84 0x07: 4 Byte Binary
222	VIBHistoryVolume_13	Refer to “VIB table”
223 … 226	Data value	Data Value
227 … 228	DIBHistoryVolume_14	0xC4 0x07: 4 Byte Binary
229	VIBHistoryVolume_14	Refer to “VIB table”
230 … 233	Data value	Data Value
234 … 235	DIBHistoryVolume_oldest	0x84 0x08: 4 Byte Binary
236	VIBHistoryVolume_oldest	Refer to “VIB table”
237 … 240	Data value	Data Value

Combined Meter

ByteOffset	Description	Content
1 … 2	DIBNextDueDate	0xC2 0x0F: 2 Byte Type G
3 … 4	VIBNextDueDate	0xEC 0x7E: future time stamp, data type G
5 … 6	Data value	future key date (provided by Techem)
7 … 8	DIBDateTime	0x04: current value, 4 Byte
9 … 10	VIBDateTime	0x6D: time stamp, data type F
11 … 14	Data value	current date and time
15	DIBDueDateValueEnergy(heat)	0x44: current value, 4 Byte Binary
16	VIBDueDateValueEnergy(heat)	Refer to “VIB table”
17 … 20	Data value	always positive If value too large for DataRecord, the most significant digit is 'E'
21 … 22	DIBDueDateValueEnergy(cold)	0xC4 0x10: current value, 4 Byte Binary

23	VIBDueDateValueEnergy(cold)	Refer to “VIB table”
24 … 27	Data value	always positive If value too large for DataRecord, the most significant digit is 'E'
28	DIBDueDate	0x42: 2 Byte, Value from Techem, invalid (0xFFFF) if no due date has happened so far
29	VIBDueDate	0x6C: current due date, data type G
30 … 31	Data value	Last due date
32 … 33	DIBHistoryEnergyHeat_newest	0x84 0x01: 4 Byte Binary
34	VIBHistoryEnergyHeat_newest	Refer to “VIB table”
35 … 38	Data value	The value is a monthly end value except the start value which is send as oldest value in the history
39 … 40	DIBHistoryEnergyHeat_2	0xC4 0x01: 4 Byte Binary
41	VIBHistoryEnergyHeat_2	Refer to “VIB table”
42 … 45	Data value	Data Value
46 … 47	DIBHistoryEnergyHeat_3	0x84 0x02: 4 Byte Binary
48	VIBHistoryEnergyHeat_3	Refer to “VIB table”
49 … 52	Data value	Data Value
53 … 54	DIBHistoryEnergyHeat_4	0xC4 0x02: 4 Byte Binary
55	VIBHistoryEnergyHeat_4	Refer to “VIB table”
56 … 59	Data value	Data Value
60 … 61	DIBHistoryEnergyHeat_5	0x84 0x03: 4 Byte Binary
62	VIBHistoryEnergyHeat_5	Refer to “VIB table”
63 … 66	Data value	Data Value
67 … 68	DIBHistoryEnergyHeat_6	0xC4 0x03: 4 Byte Binary
69	VIBHistoryEnergyHeat_6	Refer to “VIB table”
70 … 73	Data value	Data Value
74 … 75	DIBHistoryEnergyHeat_7	0x84 0x04: 4 Byte Binary
76	VIBHistoryEnergyHeat_7	Refer to “VIB table”

77 … 80	Data value	Data Value
81 … 82	DIBHistoryEnergyHeat_8	0xC4 0x04: 4 Byte Binary
83	VIBHistoryEnergyHeat_8	Refer to “VIB table”
84 … 87	Data value	Data Value
88 … 89	DIBHistoryEnergyHeat_9	0x84 0x05: 4 Byte Binary
90	VIBHistoryEnergyHeat_9	Refer to “VIB table”
91 … 94	Data value	Data Value
95 … 96	DIBHistoryEnergyHeat_10	0xC4 0x05: 4 Byte Binary
97	VIBHistoryEnergyHeat_10	Refer to “VIB table”
98 … 101	Data value	Data Value
102 … 103	DIBHistoryEnergyHeat_11	0x84 0x06: 4 Byte Binary
104	VIBHistoryEnergyHeat_11	Refer to “VIB table”
105 … 108	Data value	Data Value
109 … 110	DIBHistoryEnergyHeat_12	0xC4 0x06: 4 Byte Binary
111	VIBHistoryEnergyHeat_12	Refer to “VIB table”
112 … 115	Data value	Data Value
116 … 117	DIBHistoryEnergyHeat_13	0x84 0x07: 4 Byte Binary
118	VIBHistoryEnergyHeat_13	Refer to “VIB table”
119 … 122	Data value	Data Value
123 … 124	DIBHistoryEnergyHeat_14	0xC4 0x07: 4 Byte Binary
125	VIBHistoryEnergyHeat_14	Refer to “VIB table”
126 … 129	Data value	Data Value
130 … 131	DIBHistoryEnergyHeat_oldest	0x84 0x08: 4 Byte Binary
132	VIBHistoryEnergyHeat_oldest	Refer to “VIB table”
133 … 136	Data value	Data Value

137 … 138	DIBHistoryEnergyCold_newest	0x84 0x11: 4 Byte Binary
139	VIBHistoryEnergyCold_newest	Refer to “VIB table”
140 … 143	Data value	The value is a monthly end value except the start value which is send as oldest value in the history
144 … 145	DIBHistoryEnergyCold_2	0xC4 0x11: 4 Byte Binary
146	VIBHistoryEnergyCold_2	Refer to “VIB table”
147 … 150	Data value	Data Value
151 … 152	DIBHistoryEnergyCold_3	0x84 0x12: 4 Byte Binary
153	VIBHistoryEnergyCold_3	Refer to “VIB table”
154 … 157	Data value	Data Value
158 … 159	DIBHistoryEnergyCold_4	0xC4 0x12: 4 Byte Binary
160	VIBHistoryEnergyCold_4	Refer to “VIB table”
161 … 164	Data value	Data Value
165 … 166	DIBHistoryEnergyCold_5	0x84 0x13: 4 Byte Binary
167	VIBHistoryEnergyCold_5	Refer to “VIB table”
168 … 171	Data value	Data Value
172 … 173	DIBHistoryEnergyCold_6	0xC4 0x13: 4 Byte Binary
174	VIBHistoryEnergyCold_6	Refer to “VIB table”
175 … 178	Data value	Data Value
179 … 180	DIBHistoryEnergyCold_7	0x84 0x14: 4 Byte Binary
181	VIBHistoryEnergyCold_7	Refer to “VIB table”
182 … 185	Data value	Data Value
186 … 187	DIBHistoryEnergyCold_8	0xC4 0x14: 4 Byte Binary
188	VIBHistoryEnergyCold_8	Refer to “VIB table”
189 … 192	Data value	Data Value
193 … 194	DIBHistoryEnergyCold_9	0x84 0x15: 4 Byte Binary

195	VIBHistoryEnergyCold_9	Refer to “VIB table”
196 … 199	Data value	Data Value
200 … 201	DIBHistoryEnergyCold_10	0xC4 0x15: 4 Byte Binary
202	VIBHistoryEnergyCold_10	Refer to “VIB table”
203 … 206	Data value	Data Value
207 … 208	DIBHistoryEnergyCold_11	0x84 0x16: 4 Byte Binary
209	VIBHistoryEnergyCold_11	Refer to “VIB table”
210 … 213	Data value	Data Value
214 … 215	DIBHistoryEnergyCold_12	0xC4 0x16: 4 Byte Binary
216	VIBHistoryEnergyCold_12	Refer to “VIB table”
217 … 220	Data value	Data Value
221 … 222	DIBHistoryEnergyCold_13	0x84 0x17: 4 Byte Binary
223	VIBHistoryEnergyCold_13	Refer to “VIB table”
224 … 227	Data value	Data Value
228 … 229	DIBHistoryEnergyCold_14	0xC4 0x17: 4 Byte Binary
230	VIBHistoryEnergyCold_14	Refer to “VIB table”
231 … 234	Data value	Data Value
235 … 236	DIBHistoryEnergyCold_oldest	0x84 0x18: 4 Byte Binary
237	VIBHistoryEnergyCold_oldest	Refer to “VIB table”
238 … 241	Data value	Data Value

Application Reset Subcode 0x50

Heat Meter and Cold Meter

ByteOffset	Description	Content
1	DIBMainEnergy	0x04: current value, 4 Byte Binary
2	VIBEnergy	Refer to “VIB table”

3 … 6	Data value	cumulative energy (main battery), always positive If value too large for DataRecord, the most significant digit is 'E'
7	DIBMainVolume	0x04: current value, 4 Byte Binary
8	VIBVolume	Refer to "VIB table"
9 … 12	Data value	cumulated volume (main energy), always positive If value too large for DataRecord, most significant digit is 'E'
13	DIBFlow	0x02: current value, 2 Byte Binary
14	VIBFlow	Refer to "VIB table"
15 … 16	Data value	current flow rate, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
17	DIBPower	0x03: current value, 3 Byte Binary
18	VIBPower	Refer to "VIB table"
19 … 21	Data value	current power, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
22	DIBTemp	0x02: current value, 2 Byte Binary
23	VIBFlowTemp	0x5A: flow temperature [0,1°C]
24 … 25	Data value	current flow temperature If the value is negative, the most significant digit is 'F'
26	DIBTemp	0x02: current value, 2 Byte Binary
27	VIBReturnTemp	0x5E: back flow temperature [0,1°C]
28 … 29	Data value	Current back flow temperature If the value is negative, the most significant digit is 'F'
30	DIBTemp	0x02: current value, 2 Byte Binary
31	VIBDiffTemp	0x62: temperature difference [0,1K]
32 … 33	Data value	current temperature difference If the value is negative, the most significant digit is 'F'
34	DIBState	0x0F: manufacturer specific, 11 Byte
35 … 45	Data values	First Byte signature of data, 3 Byte Version legal version, 3 Byte non legal version, 3 Byte techem version, 1 Byte remaining metrological log entries

Combined Meter

ByteOffset	Description	Content
1	DIBMainEnergy (heat)	0x04: current value, 4 Byte Binary
2	VIBEnergy (heat)	Refer to "VIB table"
3 … 6	Data value	cumulative energy (main battery), always positive If value too large for DataRecord, the most significant digit is 'E'
7 … 8	DIBMainEnergy (cold)	0x84 0x10: current value, 4 Byte Binary
9	VIBEnergy (cold)	Refer to "VIB table"
10 … 13	Data value	cumulative energy, always positive If value too large for DataRecord, the most significant digit is 'E'
14	DIBMainVolume	0x04: current value, 4 Byte Binary
15	VIBVolume	Refer to "VIB table"
16 … 19	Data value	cumulated volume (main energy), always positive If value too large for DataRecord, most significant digit is 'E'

20	DIBFlow	0x02: current value, 2 Byte Binary
21	VIBFlow	Refer to "VIB table"
22 … 23	Data value	current flow rate, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
24	DIBPower (heat)	0x03: current value, 3 Byte Binary
25	VIBPower (heat)	Refer to "VIB table"
26 … 28	Data value	current power, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
29 ... 30	DIBPower (cold)	0x83 0x10: current value, 3 Byte Binary
31	VIBPower (cold)	Refer to "VIB table"
32 … 34	Data value	current power, always >= 0 If value too large for DataRecord, the most significant digit is 'E'
35	DIBTemp	0x02: current value, 2 Byte Binary
36	VIBFlowTemp	0x5A: flow temperature [0,1°C]
37 … 38	Data value	current flow temperature If the value is negative, the most significant digit is 'F'
39	DIBTemp	0x02: current value, 2 Byte Binary
40	VIBReturnTemp	0x5E: back flow temperature [0,1°C]
41 … 42	Data value	Current back flow temperature If the value is negative, the most significant digit is 'F'
43	DIBTemp	0x02: current value, 2 Byte Binary
44	VIBDiffTemp	0x62: temperature difference [0,1K]
45 … 46	Data value	current temperature difference If the value is negative, the most significant digit is 'F'
47	DIBState	0x0F: manufacturer specific, 11 Byte
48 … 58	Data	First Byte signature of data, 3 Byte Version legal version, 3 Byte non legal version, 3 Byte techem version, 1 Byte remaining metrological log entries

5 Application Reset Subcode 0x60

Heat Meter and Cold Meter

ByteOffset	Beschreibung	Inhalt
1 … 2	DIBMaxFlow	0x92 0x09: current value, 2 Byte Binary
3	VIBFlow	Refer to "VIB table"
4 … 5	Data value	max. flow rate, always >= 0 If the max. flow rate is invalid, the most significant digit is 'E'
6 … 7	DIBMaxFlowDate	0x82 0x09: value, 2 Byte binary
8	VIBDate	0x6C: time stamp, data type G
9 … 10	Data value	timestamp to flow rate maximum value If the max. flow rate value is invalid, data value is 0xFFFF
11 … 12	DIBMaxFlowTemp	0xD2 0x09: current value, 2 Byte Binary

13	VIBFlowTemp	0x5A: flow temperature [0,1°C]
14 … 15	Data value	max. flow temperature If the value is negative, the most significant digit is 'F' If the max. flow temperature is invalid, the most significant digit is 'E'
16 … 17	DIBMaxFlowTempDate	0xC2 0x09: value, 2 Byte binary
18	VIBDate	0x6C: Time stamp, data type G
19 … 20	Data value	timestamp to flow rate maximum value If the max. flow rate value is invalid, data value is 0xFFFF
21 … 22	DIBMaxReturnTemp	0x92 x0A: value, 2 Byte binary
23	VIBReturnTemp	0x5E: back flow temperature [0,1°C]
24 … 25	Data value	max. back flow temperature If the value is negative, the most significant digit is 'F' If the max. back flow temperature is invalid, the most significant digit is 'E'
26 … 27	DIBMaxReturnTempDate	0x82 0x0A: value, 2 Byte binary
28	VIBDate	0x6C: time stamp, data type G
29 … 30	Data value	time stamp to back flow rate maximum value If the max. flow rate value is invalid, data value is 0xFFFF
31 … 32	DIBMaxPower	0xD3 0x0A: value 3 byte binary
33	VIBPower	Refer to "VIB table"
34 … 36	Data value	max. power, always >= 0 If the max. value is invalid, the most significant digit is 'E'
37 … 38	DIBMaxPowerDate	0xC2 0x0A: value, 2 Byte binary
39	VIBDate	0x6C: time stamp, data type G
40 … 41	Data value	time stamp for power maximum value If the Max. Value invalid, is data value 0xFFFF
42	DIBDateTime	0x04: current value, 32 bit binary
43	VIBDateTime	0x6D: time stamp, Data type F
44 … 47	Data value	current date & time
48	DIBFabricationNumber	0x0C: current value, 8 digits BCD (4 byte)
49	VIBFabricationNumber	0x78: fabrication number
50 … 53	Data value	fabrication number
54	DIBOperatingTime	0x04: current value, 32 bit binary
55	VIBOperatingTime	0x26: operating time [h]
56 … 59	Data value	operating time

Combined Meter

ByteOffset	Beschreibung	Inhalt
1 … 2	DIBMaxFlow	0x92 0x09: current value, 2 Byte Binary
3	VIBFlow	Refer to "VIB table"
4 … 5	Data value	max. flow rate, always >= 0 If the max. flow rate is invalid, the most significant digit is 'E'
6 … 7	DIBMaxFlowDate	0x82 0x09: value, 2 Byte binary
8	VIBDate	0x6C: time stamp, data type G

9 … 10	Data value	timestamp to flow rate maximum value If the max. flow rate value is invalid, data value is 0xFFFF
11 … 12	DIBMaxFlowTemp	0xD2 0x09: current value, 2 Byte Binary
13	VIBFlowTemp	0x5A: flow temperature [0,1°C]
14 … 15	Data value	max. flow temperature If the value is negative, the most significant digit is 'F' If the max. flow temperature is invalid, the most significant digit is 'E'
16 … 17	DIBMaxFlowTempDate	0xC2 0x09: value, 2 Byte binary
18	VIBDate	0x6C: Time stamp, data type G
19 … 20	Data value	timestamp to flow rate maximum value If the max. flow rate value is invalid, data value is 0xFFFF
21 … 22	DIBMaxReturnTemp	0x92 x0A: value, 2 Byte binary
23	VIBReturnTemp	0x5E: back flow temperature [0,1°C]
24 … 25	Data value	max. back flow temperature If the value is negative, the most significant digit is 'F' If the max. back flow temperature is invalid, the most significant digit is 'E'
26 … 27	DIBMaxReturnTempDate	0x82 0x0A: value, 2 Byte binary
28	VIBDate	0x6C: time stamp, data type G
29 … 30	Data value	time stamp to back flow rate maximum value If the max. flow rate value is invalid, data value is 0xFFFF
31 … 32	DIBMaxPower(heat)	0xD3 0x0A: value 3 byte binary
33	VIBPower(heat)	Refer to “VIB table”
34 … 36	Data value	max. power, always >= 0 If the max. value is invalid, the most significant digit is 'E'
37 … 38	DIBMaxPowerDate(heat)	0xC2 0x0A: value, 2 Byte binary
39	VIBDate(heat)	0x6C: time stamp, data type G
40 … 41	Data value	time stamp for power maximum value If the Max. Value invalid, is data value 0xFFFF
42 … 43	DIBMaxPower(cold)	0xD3 0x1A: value 3 byte binary
44	VIBPower(cold)	Refer to “VIB table”
45 … 47	Data value	max. power, always >= 0 If the max. value is invalid, the most significant digit is 'E'
48 … 49	DIBMaxPowerDate(cold)	0xC2 0x1A: value, 2 Byte binary
50	VIBDate(cold)	0x6C: time stamp, data type G
51 … 52	Data value	time stamp for power maximum value If the Max. Value invalid, is data value 0xFFFF
53	DIBDateTime	0x04: current value, 32 bit binary
54	VIBDateTime	0x6D: time stamp, Data type F
55 … 58	Data value	current date & time
59	DIBFabricationNumber	0x0C: current value, 8 digits BCD (4 byte)
60	VIBFabricationNumber	0x78: fabrication number

61 … 64	Data value	fabrication number
65	DIBDueDateValueVolume	0x44: value 4 byte binary
66	VIBDueDateValueVolume	Refer to “VIB table”
67 … 70	Data value	cumulated volume (main energy), always positive If value too large for DataRecord, most significant digit is 'E'
71 … 72	DIBHistoryVolume_newest	0x84 0x01: 4 Byte Binary
73	VIBHistoryVolume_newest	Refer to “VIB table”
74 … 77	Data value	The value is a monthly end value except the start value which is send as oldest value in the history
78 … 79	DIBHistoryVolume_2	0xC4 0x01: 4 Byte Binary
80	VIBHistoryVolume_2	Refer to “VIB table”
81 … 84	Data value	Data Value
85 … 86	DIBHistoryVolume_3	0x84 0x02: 4 Byte Binary
87	VIBHistoryVolume_3	Refer to “VIB table”
88 … 91	Data value	Data Value
92 … 93	DIBHistoryVolume_4	0xC4 0x02: 4 Byte Binary
94	VIBHistoryVolume_4	Refer to “VIB table”
95 … 98	Data value	Data Value
99 … 100	DIBHistoryVolume_5	0x84 0x03: 4 Byte Binary
101	VIBHistoryVolume_5	Refer to “VIB table”
102 … 105	Data value	Data Value
106 … 107	DIBHistoryVolume_6	0xC4 0x03: 4 Byte Binary
108	VIBHistoryVolume_6	Refer to “VIB table”
109 … 112	Data value	Data Value
113 … 114	DIBHistoryVolume_7	0x84 0x04: 4 Byte Binary
115	VIBHistoryVolume_7	Refer to “VIB table”
116 … 119	Data value	Data Value
120 … 121	DIBHistoryVolume_8	0xC4 0x04: 4 Byte Binary
122	VIBHistoryVolume_8	Refer to “VIB table”
123 … 126	Data value	Data Value
127 … 128	DIBHistoryVolume_9	0x84 0x05: 4 Byte Binary
129	VIBHistoryVolume_9	Refer to “VIB table”
130 … 133	Data value	Data Value
134 … 135	DIBHistoryVolume_10	0xC4 0x05: 4 Byte Binary
136	VIBHistoryVolume_10	Refer to “VIB table”
137 … 140	Data value	Data Value
141 … 142	DIBHistoryVolume_11	0x84 0x06: 4 Byte Binary
143	VIBHistoryVolume_11	Refer to “VIB table”
144 … 147	Data value	Data Value
148 … 149	DIBHistoryVolume_12	0xC4 0x06: 4 Byte Binary
150	VIBHistoryVolume_12	Refer to “VIB table”
151 … 154	Data value	Data Value
155 … 156	DIBHistoryVolume_13	0x84 0x07: 4 Byte Binary
157	VIBHistoryVolume_13	Refer to “VIB table”

158 … 161	Data value	Data Value
162 … 163	DIBHistoryVolume_14	0xC4 0x07: 4 Byte Binary
164	VIBHistoryVolume_14	Refer to “VIB table”
165 … 168	Data value	Data Value
169 … 170	DIBHistoryVolume_oldest	0x84 0x08: 4 Byte Binary
171	VIBHistoryVolume_oldest	Refer to “VIB table”
172 … 175	Data value	Data Value
176	DIBOperatingTime	0x04: current value, 32 bit binary
177	VIBOperatingTime	0x26: operating time [h]
178 … 181	Data value	operating time

6 Application Reset Subcode 0x80

This Application Reset Subcode is used by Diehl Metering to identify the counter.

Heat,Cold and Combined Meter

ByteOffset	Description	Content
1	DIBFabricationNumber	0x07: current value, 64 bit binary
2	VIBFabricationNumber	0x78: fabrication number
3 … 10	Data value	fabrication number
11	DIBFirmwareVersion	0x03: current value, 24 bit binary
12 … 13	VIBFirmwareVersion	0xFD 0x0F: firmware version
14	NonLegalFWVersionMain	
15	NonLegalFWVersionSub	
16	NonLegalFWVersionPatch	

7 Application Reset Subcode 0xB0

Via this Application Reset subcode the response of the last executed Diehl Metering command is always available. The command response is available until the next Diehl Metering command, but for a maximum of 60 minutes.

Heat,Cold and Combined Meter

ByteOffset	Description	Content
1	DIBManufacture	0x0F: Start manufacturer specific data
2	ManufactureData ID	0xB0
3 … n	CommandReply	Response of the last executed Diehl Metering command

If there is no Diehl Metering command response, then the field "CommandReply" is empty and has 0 bytes.